Customer No.: 31561
Application No.: 10/064,503
Docket No.: 9170-US-230

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| In Re Application of: | ) | |
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| NAKAMURA ET AL. | ) | Examiner: LAWRENCE JR, FRANK M |
| | ) | |
| Serial No.: 10/064,503 | ) | Art Unit: 1724 |
| | ) | |
| Filed: 07/23/2002 | ) | Docket No.: 9170-US-230 |
| | ) | |
| For: APPARATUS AND METHOD FOR PURIFYING AIR USED IN CRYOGENIC AIR SEPARATION | ) | |

***No fee is believed to be due. However, the Commissioner is authorized to charge any fees required in connection with the filing of this paper to account No. 50-2620 (Order No.: 9170-US-230)***

## AMENDMENT AND RESPONSE TO OFFICE ACTION

U.S. Patent and Trademark Office
Commissioner for Patents
2011 South Clark Place
Customer Window, Mail Stop **Non-Fee Amendment**
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

The Office Action mailed September 11, 2003 has been carefully considered. In response thereto, please enter the following amendments and consider the following remarks.

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## AMENDMENTS

1. (currently amended) An apparatus for purifying air used as a raw material in cryogenic air separation that separates nitrogen and oxygen mainly by distilling the air at low temperatures, comprising:

an adsorber comprising an adsorption cylinder that comprises a first adsorbing layer and a second adsorbing layer, wherein the first adsorbing layer comprises a first adsorbent capable of selectively adsorbing water in the air and the second adsorbing layer comprises a second adsorbent capable of selectively adsorbing nitrogen oxides and/or hydrocarbons in the air passing the first adsorbing layer, wherein

the second adsorbent comprises an X zeolite containing magnesium ion as an ion-exchangeable cation, and a magnesium-exchange ratio in total cations of the X zeolite is higher than 40%.

Claim 2: canceled

Claim 3: canceled.

4. (currently amended) ~~The~~ An apparatus ~~of claim 1~~ for purifying air used as a raw material in cryogenic air separation that separates nitrogen and oxygen mainly by distilling the air at low temperatures, comprising:

an adsorber comprising an adsorption cylinder that comprises a first adsorbing layer and a second adsorbing layer, wherein the first adsorbing layer comprises a first adsorbent capable of selectively adsorbing water in the air and the second adsorbing layer comprises a second